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SOMETHING ABOUT SMUT.—In the preceding number we gave an illustration (Fig. 164) of a kind of parasitic fungi which are very common, namely, the Smuts. The figure referred to shows a plant, the common Bugbane or black snake root (*Cimicifuga*) distorted by a Smut-fungus. The plant became abnormal in consequence of the attack of this parasite and when the mass of spores of the latter became nearly or quite ripe, they ruptured the epidermis and the black powdery mass escaped. When examined under the microscope the "smut" proves to be a multitude of little round bodies as shown in the figures (*b, c and d*). These germinate—showing that they are reproductive bodies of plants multiplying the species as do seeds in case of the higher plants. They are much simpler in structure than are seeds and are called *spores*. At *d* in figure 164 is shown a spore that has germinated.



FIG. 165.—*HE-LO'-TI-UM CI-TRI'-NUM*.—An attractive little Disc-fungus, yellow in color, growing on rotten logs in very damp places. The scale at the bottom shows the extent of the slight magnification. The spores are not borne on gills, pores, spines, etc., as in the case of those called *Ba-sid-i-o-my-ce'-tes*, but the cups (or saucers) contain a compact layer of large cells *within which the spores are borne*. It belongs to the *Dis-co-my-ce'-tes* (which is a large group of the *As-co-my-ce'-tes*).

"QUOTATION PAGE."

QUOTATION—In the introductory part of the *Mushroom Book* we find the following readable paragraphs by Nina L. Marshall:

"Although for centuries it has been known that some fungi contain most virulent poisons, still, through ignorance of those points which distinguish the poisonous from the edible, frequent cases of poisoning occur in all classes of society. The mistakes resulting in death have been frequent enough to inspire the timid with an overpowering dread of all fungi, while the damp and grawsome places in which many fungi flourish have caused them to be despised by others. The following lines from Shelley very aptly express the general sentiment:

"And plants, at whose names the verse feels loath,
Fill'd the place with a monstrous undergrowth,
Prickly and pulpos, and blistering and blue,
Livid, and starr'd with a lurid dew.
"And agarics and fungi, with mildew and mould,
Started like mist from the wet ground cold;
Pale, fleshy, as if the decaying dead
With a spirit of growth had been animated."

Shelley: "The Sensitive Plant."

"To many people the only growths known as fungi are toadstools and mushrooms. They give the name mushrooms to the species known to them as edible, and regard all other similar growths as toadstools, things uncanny or poisonous.

"The grisly toadstool grown there mought I see,
And loathed paddocks (toads) lording on the same."

Spenser's "Faerie Queene."

"This distinction has no scientific basis, and in fact most of the species called toadstools are edible. Fungi are not always the grawsome things of Shelley and Spenser. In their ranks are many which delight the eye with their colouring and the symmetry of their forms. They are the grotesques of nature; nests, hoods, cups, umbrellas, shells, and clubs are represented, together with spheres, hemispheres, cones, and many other geometrical figures. The mildew on the linens, the mould on food, the rusts and smuts which blight our fields of grain, and the dry rot which crumbles our lumber to dust and which causes old wood in dark places to glow with a wierd, pale, flickering light, are all forms of one group or another of these plants which prey upon living or dead organic matter. In ordinary observation, only the simpler and more noticeable fungi are taken into account, but they are in reality met with in almost every situation imaginable. They are found in damp cellars and in rooms shut off from the light; in fact, some form of fungus will be found in every place and on everything which is not exposed to a circulation of fresh air.

"In woods and open fields the attractive forms are found. In shady woods the beautiful white 'bear's head' hangs on stately tree trunks, and the 'destroying angels' gleam white in the shadows on the ground. Shelfing brackets, green or red or brown, encircle old stumps, or stand out stiff and white from the crumbling trunks of fallen moss-grown monarchs of the forest, while wood-brown toadstools huddle in groups among the fallen leaves. On the outskirts of the wood, green and red Russula vie with the flowers in the brilliancy of their colouring. Pirk or violet Clavarias, dainty corals, border the wood path, and golden Clavarias lighten up the somber wood tints with their yellow branches. In dry pastures and along wood roads, puff-balls, large and small, send up their puffs of brown smoke, to the delight of every passing child who strikes them with a wand. On lawns and hillsides the Oreades cause fairy rings to grow. The fairy rings are circles, or parts of circles, of impoverished grass of a lighter colour and less luxuriant growth than that of the grass immediately surrounding the circle. Before the existence of fairy folk came to be doubted, it was firmly believed that these fairy rings were the dancing grounds of the fairies.

"The nimble elves
That do by moonshine green sour ringlets make
Wherof the ewe bites not; whose pastime 'tis
To make these midnight mushrooms."

Rev. Gerard Smith.

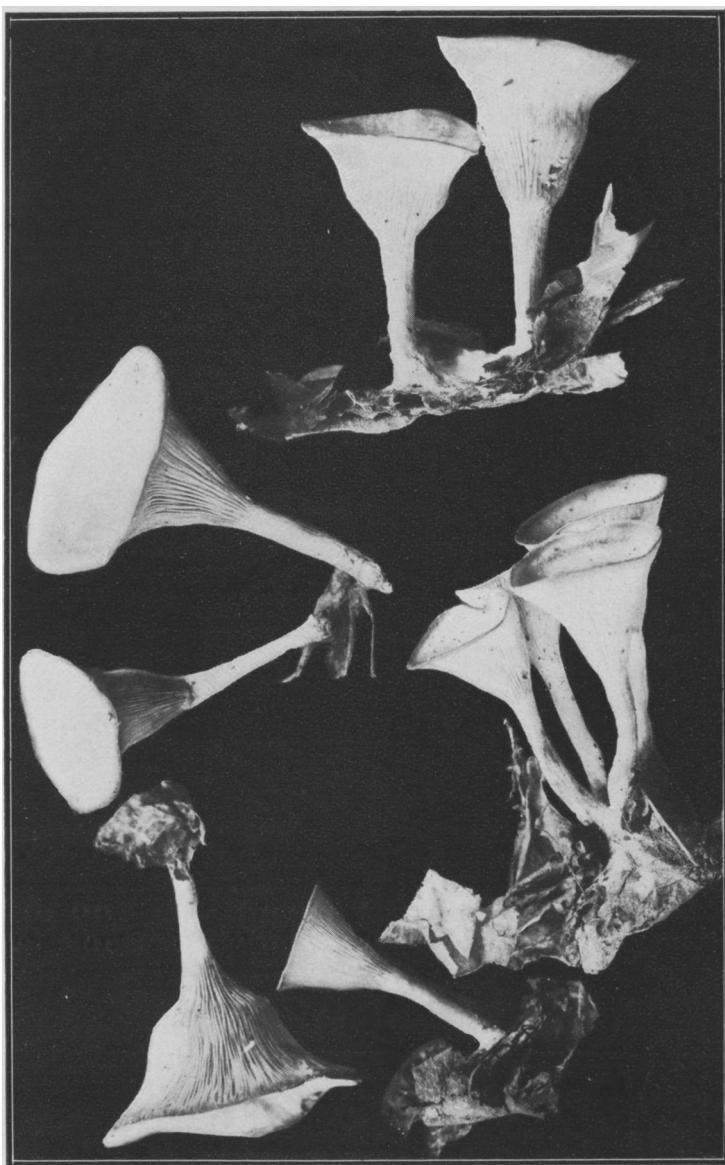


FIG. 166.—CLI-TOC'-Y-BE FLAC'-CI-DA.—A small white-spored white Mushroom, rather firm in texture growing in shady places in moist woods. See also next figure.

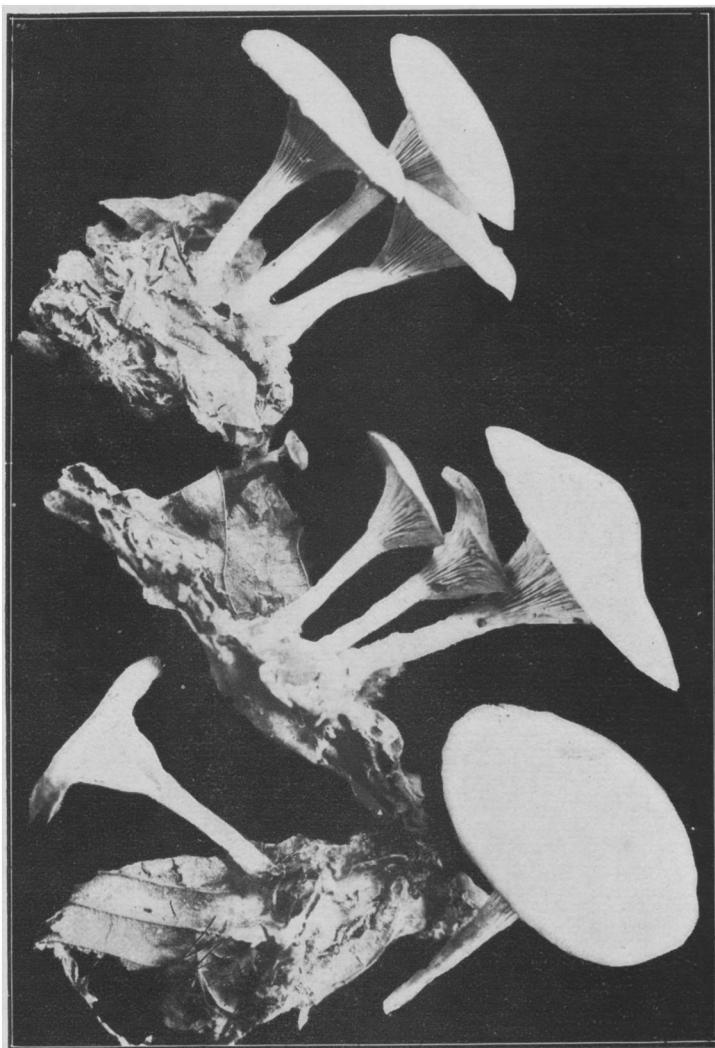


FIG. 166.—CLI-TOC'-Y-BE IN-FUN-DIB-U-LI-FOR'-MIS.—Very much like the preceding (Fig. 166); in fact, they may represent the same species. This and the preceding were made from photographs of specimens collected near Columbus, Ohio.

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